

- 18 -

**ABSTRACT**

A composite beam is disclosed. The beam includes a beam  
(5), a solid slab or a composite slab (29) positioned on  
5 and supported by the beam, the solid slab and the composite  
slab including a slab section and a plurality of concrete  
ribs (21) extending from the slab section. The beam also  
includes at least one shear connector (15) positioned in at  
least one of the concrete ribs and connecting the solid  
10 slab or the composite slab to the beam. The beam also  
includes a reinforcing component (19) embedded in at least  
one concrete rib that includes an embedded shear connector  
or connectors. The reinforcing component is in the form of  
a mesh that includes line wires (41) and cross wires (43)  
15 that are connected together at the intersections of the  
wires.